

Causing diseases in animals during transition period and its affect on dairy animals.

Christie Gardner*

Department of Veterinary Clinical Science, University of Zurich, Zurich, Switzerland

High genetic quality dairy cows exist in a variety of dietary and environmental environments. Despite this, they can adapt to changes and disruptions and yet maintain their internal organisation, yielding large amounts of milk in the process. However, the degree to which animals successfully adapt varies greatly between individuals. To survive for as long as feasible, adaptation to environmental changes and disturbances necessitates rules on many scales within the organism. As a result, adaptation is a useful and goal-oriented process that can be evaluated over time by looking at longevity. Variable levels of adaptation are indicated in the short term by symptoms of subclinical and clinical diseases, metabolic and reproductive abnormalities, and other illnesses. When illnesses appear, it shows how difficult it is for animals to deal with both internal and external conditions, threatening their own ability to survive.

The most difficult and crucial time in terms of the health of the dairy cow throughout the lactation cycle is the transition phase, which is defined as the period from three weeks prior to parturition to three weeks following parturition [1]. During this time, the cow's production cycle transitions from a pregnant non lactating stage to the beginning of profuse milk synthesis and secretion, resulting in significant physiological, nutritional, metabolic, and immunological changes. Cows must change their metabolic processes to accommodate the sharp rise in energy and nutritional needs necessary to ensure milk supply during the next lactation. In the first weeks of the transition phase, gaps between nutritional demand and supply might coincide with significant fluctuations in the nutrient composition of diets and in the amount of daily dry matter consumed, necessitating extensive adaptation and regulation of the metabolism [2]. During this season, dairy cows encounter numerous physiological difficulties. To facilitate a smooth transition from late pregnancy to early lactation, appropriate treatment is essential. This will improve performance for the coming season.

Monitoring the transition dairy cow enables farmers to spot potential problems early on. Between 60 days prior to calving and 30 days following calving is the transition period [3]. The health, productivity, conception rate, and longevity of your herd are all impacted by transition cow management. A cow experiences negative energy balance after calving when she expends more calories than she consumes. The main objective of transition cow management is to decrease the amount of

time that a cow is in a negative energy balance by promoting feed intake. Both animals and dairy farmers find the shift from late gestation to early lactation tough. Making sure the changeover goes successfully during this time requires careful management of the cows [4].

The process of a cow not producing milk, calving, and then producing milk is referred to as the transition. The three weeks prior to calving and the three weeks immediately following calving were traditionally considered the transition period. The transition phase is made up of these 90 days. Changes in energy balances, calcium homeostasis, and phosphorus homeostasis during the transition phase are associated with an increased risk of disease [5]. Due to changes in its physiology, metabolic alterations happen throughout the transitional period. When dairy cows are unable to adequately adjust to all the physiological changes, metabolic problems develop. These illness clusters are connected.

One of the most crucial elements for the success of the farm as a whole is the proper management of the cows throughout the transition phase. A milking cow has enormous calorie requirements, especially when compared to a dry cow. The energy demands of a cow more than quadruple in the two days following calving. The increased metabolic stress brought on by the increased energy requirement might be rather severe. The cow's capacity to manage this stress and get through the transition phase has an impact on her ability to produce, stay healthy, get pregnant again, and remain in the herd. Nutrient needs rise during the transition stage to support foetal growth as well as the production of milk and colostrum. During this season, dairy cows are most susceptible to contracting illnesses and disorders that result in forced culling. It's crucial to keep an eye on the transition dairy cow to spot performance changes.

References

1. Hayirli A, Grummer RR, Nordheim EV, et al. Animal and dietary factors affecting feed intake during the prefresh transition period in Holsteins. *J Dairy Sci.* 2002;85(12):3430-43.
2. Russo M, Vecchio D, Neglia G, et al. Corpus luteum function and pregnancy outcome in buffaloes during the transition period from breeding to non-breeding season. *Reprod Domest Anim.* 2010 Dec;45(6):988-91.

*Correspondence to: Christie Gardner, Department of Veterinary Clinical Science, University of Zurich, Zurich, Switzerland, E-mail: christieg453@uz.ch

Received: 02-Sep-2022, Manuscript No. AAVMAS-22-78049; Editor assigned: 05-Sep-2022, PreQC No. AAVMAS-22-78049(PQ); Reviewed: 19-Sep-2022, QC No. AAVMAS-22-78049; Revised: 22-Sep-2022, Manuscript No. AAVMAS-22-78049(R); Published: 29-Sep-2022, DOI: 10.35841/2591-7978-6.5.124

3. Ruckebusch Y. The relevance of drowsiness in the circadian cycle of farm animals. *Anim Behav.* 1972;20(4):637-43.
4. Abuelo A, Hernandez J, Benedito JL, et al. A pilot study to compare oxidative status between organically and conventionally managed dairy cattle during the transition period. *Reprod Domest Anim.* 2015;50(4):538-44.
5. Ateya AI, Hussein MS, Ghanem HM, et al. Expression profiles of immunity and reproductive genes during transition period in Holstein cattle. *Reprod Domest Anim.* 2018;53(2):352-8.